

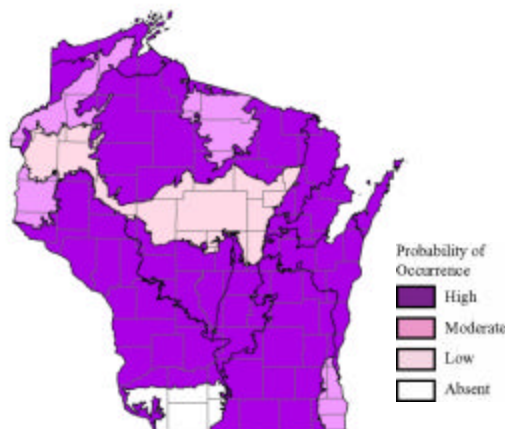
### 3.1.3.3 Individual Fish Species of Greatest Conservation Need Summaries

## Lake Sturgeon (*Acipenser fulvescens*)

### Species Assessment Scores\*

State rarity:	3
State threats:	3
State population trend:	2
Global abundance:	4
Global distribution:	5
Global threats:	3
Global population trend:	4
Mean Risk Score:	3.4
Area of importance:	5

\* Please see the [Description of Vertebrate Species Summaries \(Section 3.1.1\)](#) for definitions of criteria and scores.



### Ecological Landscape Associations

Please note that this is not a range map. Shading does not imply that the species is present throughout the Landscape, but represents the probability that the species occurs somewhere in the Landscape.

### Landscape-community Combinations of Highest Ecological Priority

Ecological Landscape	Community
Central Lake Michigan Coastal	Lake Michigan
Central Lake Michigan Coastal	Warmwater rivers
Central Sand Hills	Impoundments/Reservoirs
Central Sand Hills	Inland lakes
Central Sand Hills	Warmwater rivers
Central Sand Plains	Impoundments/Reservoirs
North Central Forest	Impoundments/Reservoirs
North Central Forest	Inland lakes
North Central Forest	Warmwater rivers
Northeast Sands	Warmwater rivers
Northern Lake Michigan Coastal	Lake Michigan
Northern Lake Michigan Coastal	Warmwater rivers
Northwest Lowlands	Warmwater rivers
Southeast Glacial Plains	Impoundments/Reservoirs
Southeast Glacial Plains	Inland lakes
Southeast Glacial Plains	Warmwater rivers
Superior Coastal Plain	Lake Superior
Western Coulee and Ridges	Warmwater rivers

### Threats and Issues

- Dam flow regulation, especially seasonal and daily altered flow regimes by hydro-electric dams, threaten this species by decreasing sturgeon spawning success.
- Dams threaten this species by destroying or degrading spawning and rearing habitats, fragmenting habitat and populations, acting as barriers to spawning migrations, preventing mature adults from reaching historical spawning grounds, and by reducing the ability of juveniles and adults to migrate downstream to reach historic feeding habitats.

- Overharvest (and also potential illegal harvest on spawning grounds) threatens this species. For example, current fisheries regulations on Lake Winnebago have led to overharvest by recreational anglers (via spear fishing) in two of the last five years, and harvest on the Menominee River is suspected to be excessive.
- Non-point and point source pollution of rivers threaten this species in a variety of ways, including impacts of contaminant exposure and bioaccumulation on populations of this long-lived species and siltation of spawning grounds.
- Additional information on the biology, population trends, and effects of targeted and incidental catch on populations is needed to better manage this species in Wisconsin.
- Alteration of the Mississippi River and the mouths of Great Lakes tributaries for the purposes of commercial navigation threaten this species by fragmenting populations, destroying or blocking access to spawning grounds, and degrading rearing habitat.

### **Priority Conservation Actions**

- Fish passage at dams, and removal of dams where possible, is needed to improve habitat in fragmented river systems and connect isolated lake sturgeon populations.
- Improved dam operations, including proper water flow management, would benefit this species.
- Reintroduction projects to re-establish lake sturgeon in isolated areas from which they have been extirpated would benefit this species, but must be done carefully with regard to genetic, hatchery and related concerns as outlined in the Wisconsin DNR Lake Sturgeon Management Plan and the Lake Michigan Committee's (GLFC) draft Lake Michigan Lake Sturgeon Rehabilitation Plan.
- Sustainable fisheries harvest regulations are needed to ensure that individual populations are not overharvested; this is particularly important because of the longevity of the species (up to 150 years or more), long period required before first spawning (14-23 years for females), and potentially long intervals between spawning (4-6 years for females). The nature of the lake sturgeon fishery and current methods of regulation may make this difficult in at least some locations (e.g., recreational spearfishery in Lake Winnebago and hook and line fisheries in a few river systems, including the Menominee, Wisconsin, Chippewa, and St. Croix).
- Information on population trends, reproduction, recruitment, seasonal migration patterns, and the success of reintroduction efforts is needed to better inform and focus management and conservation efforts for lake sturgeon in Wisconsin.
- Information is needed on the genetic composition of disjunct spawning populations of lake sturgeon to determine if these populations merit consideration and protection as ecologically significant units.
- Continued reduction of point and non-point source pollution to reduce siltation, pesticide pollution, and point-source pollutants in the watersheds inhabited by this species is needed to improve water quality and condition of spawning grounds for lake sturgeon.
- The **yellow sandshell mussel** is also a Species of Greatest Conservation Need. Because the juvenile stages of this mussel use sturgeon as a host, actions taken to preserve the lake sturgeon may aid conservation of Yellow sandshell mussel populations.